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EXTENSION SERVICE METHODS FOR TEACHING NUTRITION

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To PUT a good nutrition program into practice takes sound planning, carrying out plans, and evaluating the work done. This issue describes how extension workers plan and evaluate a nutrition program.

SELECTING METHODS

By Evelyn L. Blanchard, nutritionist, Federal Extension Service.

To select the best method of teaching nutrition requires thinking through objectives carefully. (10)* We ask ourselves:

♦ *What are we going to teach about nutrition?* Experience shows that we can get better results by teaching a few definite points well than by trying to cover too much at one time. As an example, let's select the problem of getting children in Community X to eat a good breakfast and refer to it throughout the discussion.

A rough survey and observation revealed that many children were coming to school without any breakfast; others were eating extremely poor breakfasts.

♦ *Why are we teaching this subject?* What action do we expect the group to take? To teach what to eat for breakfast is not enough. We want the group to eat a good breakfast and to understand why a good breakfast is important to health.

♦ *Whom are we going to teach?* Are they 4-H members, young homemakers, or mixed groups of adults? Do they have a fixed cultural pattern? What will cause the particular group to change its practices? Do we expect to influence a large number of people slightly or have a small number make maximum progress? In our example, we hope to reach the children themselves and motivate them to eat a good breakfast each morning. We hope to make parents and teachers understand the importance and essentials of a good breakfast.

We Choose a Method

When we have our objectives well in mind, we consider the methods we may use to attack our problems.

METHODS CLASSIFIED ACCORDING TO USE

INDIVIDUAL CONTACTS	GROUP CONTACTS	MASS CONTACTS
Farm and home visits	Method demonstration meetings	Bulletins
Office calls	Work meetings	Leaflets
Telephone calls	Leader training meetings	News articles
Personal letters	Lecture meetings	Circular letters
Result demonstrations	Conference and discussion meetings	Radio
	Meetings at result demonstrations	Television
	Other meetings	Exhibits
	Tours	Posters
	Schools	

Extension field studies conducted over a period of years have shown that people change their behavior in proportion to the number of contacts they have had with different teaching methods. For example, in the studies as the number of contacts increased from 1 to 9, the number of farm families changing behavior increased from 35 to 98 percent. If widespread response is desired, people must be "exposed" to the idea in a variety of ways and by many different methods, especially if the groups vary in education and culture.

In relating our methods to our material we take into consideration that some of the practices we teach are simple while others are complex. Where the practice is simple or interest needs to be aroused, the news story, radio broadcast, or circular letter will be effective.

Talks and lectures are important ways to present facts; for example, we can show how by including a glass of milk in a child's breakfast it will carry a good share of the day's calcium and protein requirements.

Changing attitudes involve discussion meetings. Getting teen-agers to realize the importance of a good breakfast means discussing it with them. Skits and role playing are often effective in changing attitudes.

Manual skills may be best taught through method demonstration and television. We can show how to cook eggs or how to make a quick bread for breakfast.

* Figures in parentheses refer to references on page 4.

Home visits or office calls are best when the mother or child wants to ask questions. Group meetings are effective in bringing the problems before large numbers of people. We can tell the PTA that we are launching a project of a good breakfast for every child and ask its support.

Bulletins or other publications can be given out in connection with meetings, demonstrations, radio, and television shows. Exhibits can be arranged in store windows, schools, fairs, and other public places.

A convincing way to show that food affects health is to compare white rats fed a good diet with those fed a poor diet. In Mississippi a home agent carried out a successful demonstration in a local store window. (Extension Service Review, June 1951, p. 93.) Not only were the townspeople interested, but truck drivers went miles out of their way to "see how the rats were doing."

In our example, we must consider how important the problem is; how much time, effort, and money we can afford to spend; and who can help.

One way of determining the importance of a good breakfast program and evaluating efforts is to have the children keep food records. (Suggestions for keeping food records are given on page 3.) Food records will show whether our greatest problem is that the children eat no breakfast or that the food they eat is inadequate. They will also tell what foods need to be stressed.

A good breakfast program should include as many co-operators as possible; therefore, we look around to see what other agencies, organizations, clubs, or groups might help. If Community X were in West Virginia, where the State Nutrition Committee is putting major emphasis on a good breakfast program (Nov.-Dec. 1952 NCN), we would find teachers, school lunch workers, PTA members, and public health workers vitally interested in the program.

Since we want to reach large numbers of parents, we decide to use mass media, such as newspaper articles, pamphlets, radio, television, and group meetings. We plan to reach the children through the school program and 4-H club meetings.

We Tackle the Project

Reaching parents

In the West Virginia good breakfast program, newspaper releases and articles were used. Some of the headlines read: "Campaign for good breakfast planned." "Medical-dental group endorse good breakfast," and "Good breakfast week promoted." Some of the article titles read: "It's breakfast time!" "Be sure yours is good," and "Cereal is suggested for breakfast."

Six radio programs in Wheeling were devoted to good breakfasts.

To help mothers prepare breakfasts that would be more attractive to their children, local leaders gave demonstrations to home demonstration clubs on preparing egg dishes,

cereals, and quick breads. At group meetings, discussions were held on such problems as getting children up early enough to eat breakfast and making the meal attractive and pleasant. Nutrition specialists, pediatricians, and dietitians gave talks. Movies were used for interesting groups in nutrition.

Reaching children

Children can learn about good nutrition from posters and from selecting lunches in school lunchrooms. Good breakfasts can be prepared in home-economics classes and nutrition information can be included in biology, physical education, and other studies.

In West Virginia schools the good breakfast program was taught by having children—

- ♦ Arrange exhibits of adequate and poor breakfasts, using food models.
- ♦ Write lessons on menus, breakfast foods, recipes.
- ♦ Write letters to friends in other classrooms telling of their good breakfast club experiences.
- ♦ Read to discover what other people eat for breakfast in various parts of the world, and to learn more about nutrition as related to breakfast.
- ♦ Illustrate a good breakfast with crayons, finger paint, chalk.
- ♦ Give puppet shows and other dramatic productions.
- ♦ Make scrapbooks and leaflets.
- ♦ Organize good breakfast clubs that serve good breakfasts. The children set up standards for membership, elected officers, held regular meetings, and made and wore membership tags. Families became members also. The children worked for quality of membership as well as an increase in numbers.

4-H leaders arranged breakfast projects in which members learned what makes a good breakfast and how to prepare foods for breakfast. They actually cooked a good breakfast for their families at home.

No hard and fast rules exist for selecting the best method for any given subject. Good judgment has no substitute.

Regardless of methods used, progress should be evaluated at intervals during the program to be sure the methods are getting the desired results. If they aren't, they should be improved or discarded for others.

EVALUATING PROGRESS

By Gladys Gallup, assistant director, Division of Extension Research and Training, Federal Extension Service.

Evaluating our teaching helps us find out if we are doing *what we set out to do*, weigh the effectiveness of our methods, and discover weaknesses. We measure our effectiveness in terms of changes in behavior; (10) not by the number of people who come to a meeting, hear a radio talk, read a leaflet, or fill a classroom. We need to know if

people who were taught actually take action; in our good breakfast program, if they started eating good breakfasts.

Since evaluation judges the extent to which educational objectives are reached, the extension worker or teacher must continually make judgments on what is happening to the people she is teaching. She does this by observing what people do or say, through conversations during office calls and home visits, and discussions at meetings. In addition she can get specific records of accomplishments through techniques and devices used to collect data.

We Formulate a Questionnaire

One of the devices is the questionnaire; others are scorecards, observation checks, interest checks, attitude scales, opinion polls, case studies and, for more formal studies, interview schedules. These are used for recording a person's behavior or answers to questions.

The questionnaire used to evaluate a program should be especially worked out for that program; we should not expect to find one ready made, because differences in objectives or in methods of approach make a technique effective for one program unsatisfactory in another.

To make a person want to reply, the opening sentence should tell who is asking the questions, why they are asked, and what benefit will come to the cooperator from the replies. (11)

In formulating questions there are two problems—what questions to ask and how to word the questions. The questions should be such that the answers will give desired information; they should be a sample of what is taught, and show whether the individual or family have benefited by the nutrition teaching.

Questions should be worded so that they are clear to the person being interviewed. It is well to pretest your questions with a few representative persons to clear up misconceptions caused by technical and ambiguous terms. Suggestions for wording questions are given in references 11 and 12.

In addition to questions about food we need to ask for additional data so that we can interpret the food practice questions. This information is called "face data." For evaluation of good breakfasts, the age of the person filling out the form is most important.

We Start with a Benchmark

When we evaluate any phase of nutrition education, we realize that individuals invariably have acquired some knowledge, attitudes, and practices before a program starts. At the beginning of our project we need to find out: What kinds of breakfasts do the children actually eat? What kinds of breakfasts do the homemakers serve? What do the homemakers know or understand about the value of good breakfasts and well-balanced diets? What are their attitudes toward these subjects or how do they feel about them?

The following is a sample of a form to use. It should be filled out by pupils three consecutive days including, with slight change in form, both school and non-school days.

RECORD OF BREAKFASTS EATEN

We are trying to find out what new facts about food you may need in order to know the right food to eat for good health. To do this we need to learn what the boys and girls of this class eat for breakfast.

Please fill in the blanks but do not sign your name.

School Grade Date

Age Sex

List the foods you ate for breakfast this morning.

(Include anything you drank.)

Foods eaten for breakfast—list:

- | | |
|---------|---------|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

What foods were on the table that you did not eat?

.....

.....

What foods did you eat or drink before breakfast or between breakfast and noon?

The teacher compares each pupil's record for the three days with the following suggested scorecard:

THE SCORECARD FOR BREAKFAST NEEDS

To be used by teacher or evaluator at the start and close of the good breakfast program and at interim periods to tell whether the program is improving diets.

This scorecard is for evaluation purposes only. The types of food listed make a good breakfast pattern. However the food customs of the group should be the starting point for developing a basic breakfast pattern and suitable scorecard.

Food	Points allowed daily	First day	Second day	Third day	Total points for 3 days
Fruits or juices; citrus, melon, berries; tomato	3				
Whole grain or enriched cereal or bread	1				
Milk	3				
Eggs or lean meat (not bacon)	2				
Butter or fortified margarine					
Possible total points for each day	10				

We need to guard against the "expected answer" that the child learns to give the teacher to please her. He is apt to put down a breakfast that he believes the teacher would approve even before the program begins. Also he is apt to put down a breakfast that he hopes will reflect credit upon his father as a provider and his mother as a cook. To guard against this, we should assure the student that the questionnaires are all to be unsigned. When names are not signed, a code, usually an inconspicuous number, should identify each questionnaire. Thus progress made by individuals can be determined, even though their identity is kept confidential.

The food records give a more nearly correct idea of the problem. From these we can tell whether our greatest problem is that the children eat no breakfast or that the food they eat is not adequate. We can also tell what foods need to be stressed, such as more fruit, milk or eggs.

The homemakers, too, fill in a comparable record that indicates what they had served for breakfast.

In our Community X let us say that although 15 percent of the children eat no breakfast, 30 percent do not get enough vitamin C and 50 percent do not get enough milk; so these are the points we wish to stress.

After the teaching of "good breakfast" a second 3-day record of breakfasts eaten needs to be made. Enough time, perhaps six weeks, should elapse to allow for change.

From whom do we want information?

If the number in the groups taught is small, we can get information from all. If large, we may need to select a sample from each group.

Information about sampling is given in references 11 and 13.

Every practical evaluation should tie in with general or overall objectives. For example, evaluating this breakfast project should tie in with teaching a well-rounded diet for good health. Also the findings of different evaluations should supplement each other, rather than represent isolated bits of information. Therefore, evaluating a specific subject, such as good breakfasts, should produce information for long-range purposes. This means we need to do more planning at a broader level.

SUMMARY

In teaching and evaluating any nutrition program, the following steps are important:

1. The broad purposes of the program must be broken down into specific, concrete objectives.
2. Effectiveness is measured in terms of behavior changes.
3. The technique used to evaluate a program should be especially worked out for that program.
4. To measure progress it is necessary to know the situation before the education program starts.
5. If the number who are to answer questions is large, a sample of people in the groups can represent the entire group.
6. Each evaluation should be planned in relation to long-range objectives.

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